CLAIMS

1. A process for the production of at least two-ply paper laminates, characterized in that a water-soluble hotmelt adhesive is applied to a first layer of paper and at least a second layer of paper is laminated onto the adhesive side of the first layer, the solubility of the hotmelt adhesive in water at 20°C being at least 3% by weight.

2. A process as claimed in claim 1, characterized in that a 0.3% by weight solution of the hotmelt adhesive in water has an upper cloud point of at least 60°C.

3. A process as claimed in claim 1 or 2, characterized in that the hotmelt adhesive has a melt viscosity (Brookfield Thermocell, spindle 27) of 400 to 20,000 mPa.s at a temperature of 100 to 180°C.

4. A process as claimed in any of claims 1 to 3, characterized in that the hotmelt adhesive has an open time of at least 0.2 second.

5. A process as claimed in any of claims 1 to 4, characterized in that the hotmelt adhesive has a crystallinity (as measured by DSC) of at least about 20% of the value measured for polyethylene glycol with a molecular weight (M_n) of 6,000.

6. A process as claimed in any of claims 1 to 5, characterized in that a polyalkylene glycol with a molecular weight (M_n) of 1,000 to 100,000 is used as the hotmelt adhesive.

7. A process as claimed in any of claims 1 to 6, characterized in that at least one nonionic polyurethane with a molecular weight (M_n) of at least 2,000 or a polyester with a molecular weight of at least about 3,000 is used as the hotmelt adhesive.

8. A process as claimed in claim 7, characterized in that the nonionic

polyurethane is obtainable by reacting at least one polyisocyanate with at least one polyalkylene glycol with a molecular weight of at least 1,550.

9. The use of polyalkylene glycol with a molecular weight at least 1,000 and a solubility in water at 20°C of at least 3% by weight as a hotmelt adhesive.

10. The use of a nonionic polyurethane with a molecular weight (M_n) of at least 2,000 as a hotmelt adhesive.

11. The use claimed in claim 9 or 10, characterized in that the hotmelt adhesive is used in the production of at least two-ply hygiene papers or in the production of moisture-tackifiable materials.

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